

CLAIMS

- [001] 1. The invention relates to a linear drive unit comprising at least one exciter winding, comprising a magnetic armature part which is set in linear oscillating motion about a centre position in an axial direction by the magnetic field of the winding, and comprising at least one spring which is clamped in a fixed manner and whose oscillating end acts on the armature part in the direction of motion, characterised in that in the centre position (Mp) of the armature part (15), the point of application (A, A') of the spring (2, 2') on the armature part (A, A') is displaced axially by a predetermined distance (Δx) in relation to its clamping position (B, B').
- [002] The drive unit according to claim 1, characterised in that the at least one spring (2, 2') is configured as a leaf spring tensioned transverse to the direction of movement of the armature part (15).
- [003] The drive unit according to claim 1 or claim 2, characterised in that a plurality of springs (2, 2') are provided on both sides of the centre position (Mp).
- [004] The drive unit according to any one of the preceding claims, characterised in that the armature part (15) is connected to at least one plunger of a compressor (V), wherein the axial displacement (Δx) of the point of application (A, A') of the spring (2, 2') on the armature part (15) is provided in the direction away from the compressor (V).
- [005] The drive unit according to any one of the preceding claims, characterised by at least one spring (2, 2') having low stiffness.
- [006] The drive unit according to any one of the preceding claims, characterised in that the axial displacement (Δx) of the point of application (A, A') of the spring (2, 2') is selected depending on its spring stiffness.